

Complete Summary

TITLE

Routine prenatal care: percentage of prenatal activities up-to-date at the end of a prenatal visit.

SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Routine prenatal care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2004 Jul. 74 p. [209 references]

Brief Abstract

DESCRIPTION

This measure assesses the percentage of prenatal activities up-to-date at the end of a prenatal visit.

RATIONALE

The priority aim addressed by this measure is to increase the percentage of pregnant women who are up-to-date with prenatal care activities.

PRIMARY CLINICAL COMPONENT

Prenatal care; preterm birth screening; genetic risk assessment; height; weight; fetal anomaly/biochemical screening; urine culture; Tetanus and Diphtheria Toxoids (Td) booster; cervix check; hepatitis B surface antigen; varicella immunity established; Group B Streptococcus test

DENOMINATOR DESCRIPTION

The total number of prenatal care activities reviewed for the specific visit among women presenting for prenatal care

NUMERATOR DESCRIPTION

The number of prenatal activities where the status for current visit is up-to-date (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

Evidence Supporting the Measure

PRIMARY MEASURE DOMAIN

Process

SECONDARY MEASURE DOMAIN

Not applicable

EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [Routine prenatal care.](#)

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Physician Group Practices/Clinics

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Group Clinical Practices

TARGET POPULATION AGE

Women of childbearing age

TARGET POPULATION GENDER

Female (only)

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

In the aggregate, common congenital abnormalities are frequent in the general population. A general figure for initial counseling of patients and families is 5%.

Hemophilia A is an X-linked disorder with an incidence of 1/10,000 males.

Duchenne and Becker muscular dystrophies are X-linked disorders of dystrophin structure and function occurring in 1/3,300 live male births. Female carriers are usually only mildly affected.

Cystic fibrosis is the most common fatal autosomal recessive disorder among Caucasian children, with an incidence of 1/2,000.

Severe mental retardation has a definable etiology in 50% of cases. Thirty percent of all severe mental retardation is caused by Down syndrome. Other chromosomal abnormalities account for 1 to 4%. Fragile X syndrome and inborn errors of metabolism account for 20% and 3 to 7% of severe mental retardation, respectively.

Tay-Sachs disease is an autosomal recessive disorder occurring in 1/3,600 children of Ashkenazi Jewish parents.

One of every 600 American blacks is born with sickle cell disease, and one in twelve American blacks is a heterozygote for the genetic alteration, i.e., is a carrier or has sickle cell trait.

Collectively, thalassemias are the most common single-gene disorder. Alpha-thalassemia affects formation of both fetal and adult hemoglobins, causing intrauterine disease. The deletion leading to hydrops fetalis is largely restricted to Southeast Asian populations. Beta thalassemia is common in Mediterranean populations.

Among U.S. women of childbearing age, the mean incidence of varicella is 2.16/1,000/year. After household exposure, approximately 90% of susceptible contacts will develop varicella. Varicella is an uncommon infection during

pregnancy; its incidence is estimated at 1/7,500 based on 8 cases occurring in 60,000 pregnancies prospectively studied.

Each year in the United States an estimated 22,000 infants are born to women with chronic hepatitis B virus.

Asymptomatic bacteriuria occurs in 2 to 7% of pregnant women; of those who are not bacteriuric at initial screening, 1 to 2% will develop bacteriuria later in pregnancy.

Down syndrome (trisomy 21) occurs in 1/800 births, increasing in risk with advancing maternal age. Eighty percent of Down syndrome babies are born to women under 35 with no risk factors.

About 7,600 cases of Group B Streptococcus (GBS) sepsis occur in newborns in the United States and result in about 300 deaths per year.

Vertical transmission of GBS during labor or delivery constitutes about 80% of GBS disease in the newborn.

Ten to thirty percent of pregnant women are colonized with GBS in the vaginal or rectal areas.

EVIDENCE FOR INCIDENCE/PREVALENCE

Institute for Clinical Systems Improvement (ICSI). Routine prenatal care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2004 Jul. 74 p. [209 references]

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Maternal varicella infection in the first half of the pregnancy has been associated with congenital varicella syndrome. Also, varicella infections during pregnancy may result in higher rates of complications from the infection such as varicella pneumonia and death.

Asymptomatic bacteriuria is an established risk factor for serious complications including acute pyelonephritis, preterm delivery, and low birth weight.

There is evidence that being obese leads to increased rates of dystocia and of primary cesarean section. There is new evidence to suggest that patients who are significantly underweight or overweight during pregnancy have specific risks. Those who are underweight are at higher risk for preterm labor. Those who are overweight are at risk for gestational diabetes and various forms of hypertension.

Group B Streptococcus (GBS), or Streptococcus agalactiae, is recognized as an important cause of perinatal morbidity and mortality. Invasive GBS disease in the newborn may manifest as sepsis, pneumonia, or meningitis.

EVIDENCE FOR BURDEN OF ILLNESS

Institute for Clinical Systems Improvement (ICSI). Routine prenatal care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2004 Jul. 74 p. [209 references]

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All women undergoing prenatal care

The measure is achieved through a chart abstraction of prenatal records. It is suggested that a minimum of 10 charts per month are randomly identified for abstraction.

The abstract tool is used. At any given time, the patient's status can be addressed concerning the status on up to 9 activities: risk assessment (preterm birth and genetics), height, weight, triple screen (test or declination), urine culture, Tetanus and Diphtheria Toxoids (Td) booster, cervix check, Hepatitis B surface antigen, and varicella immunity established.

These data would be gathered on a sample of at least 10 women monthly.

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR (INDEX) EVENT

Encounter

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

The total number of prenatal care activities reviewed for the specific visit among women presenting for prenatal care

Exclusions

Unspecified

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

The number of prenatal activities where the status for current visit is up-to-date*

*For each woman presenting for prenatal care, the visit number or timing is identified. Then for that visit, check to see if the time specific items (see list following) are completed or caught-up (as appropriate). The goal is to complete the items as they are needed.

- Preterm birth screening - visit 1 (6-8 wks) and 4 (28 wks); verify up-to-date at visits 2, 3, 4, and 6 (any preterm form used)
- Risk assessment, genetics** - visit 1 (6-8 wks); verify at visits 2-11 (any genetic risk form used)
- Height - visit 1 (6-8 wks); verify at visits 2-11
- Weight - ALL visits
- Fetal anomaly/Biochemical screening - visit 2 or visit 3 (10-18 wks)
- Urine culture*** - visit 1 (6-8 wks); verify at visits 2-11
- Tetanus and Diphtheria Toxoids (Td) booster*** - visit 1 (6-8 wks); verify at visits 2-11
- Cervix check - visits 5 (28 wks) and 8-11 (38, 39, 40, 41 wks); verify at visit 6
- Hepatitis B surface antigen*** - visit 1 (6-8 wks); verify at visits 2-11
- Varicella immunity established**, *** - visit 1 (6-8 wks); verify at visits 2-11
- Group B Streptococcus (GBS) test - visit 7

**The visit 1 activity may take place during a preconception visit.

***The visit 1 (6-8 wks) activity may take place at visit 2 (12 wks).

Example 1: Suppose a woman first presents herself at 20 weeks. Then 8 activities need to be done (all with exceptions of triple screen, which is now beyond the useful time interval and cervix check, which does not begin until 28 weeks). For this woman, the measure is how many of these 8 services were done (or up-to-date) at that visit.

Example 2: The chart for a woman at 36-week visit is assessed. Weight needs to be done and the following 6 activities need to be verified done in the past or caught-up: risk (genetic), height, Hepatitis

B surface antigen, varicella immunity status determined, Td booster, and urine culture. This would total 7 activities for the denominator. For this woman, the measure is how many of these 7 activities were done (or up-to-date) at that visit.

Exclusions
Unspecified

DENOMINATOR TIME WINDOW

Time window is a single point in time

NUMERATOR TIME WINDOW

Episode of care

DATA SOURCE

Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Percentage of prenatal activities up-to-date at the end of a prenatal visit.

MEASURE COLLECTION

[Routine Prenatal Care Measures](#)

DEVELOPER

Institute for Clinical Systems Improvement

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2003 Jul

REVISION DATE

2004 Jul

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: Institute for Clinical Systems Improvement (ICSI). Routine prenatal care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2003 Jul. 56 p.

SOURCE(S)

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MEASURE AVAILABILITY

The individual measure, "Percentage of prenatal activities up-to-date at the end of a prenatal visit," is published in "Health Care Guideline: Routine Prenatal Care." This document is available from the [Institute for Clinical Systems Improvement \(ICSI\) Web site](#).

For more information, contact ICSI at, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; phone: 952-814-7060; fax: 952-858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

NQMC STATUS

This NQMC summary was completed by ECRI on March 29, 2004. This summary was updated by ECRI on November 11, 2004.

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Date Modified: 3/28/2005

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